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EXAMINER

GREY, CHRISTOPHER P

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/798,412	Applicant(s) RADI ET AL.	
	Examiner CHRISTOPHER P. GREY	Art Unit 2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 January 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

Claims 1, 12-27 are objected to because of the following informalities: These claims contain the acronyms EMS and NMS, however do not define these acronyms within the claim. Examiners suggested correction: “EMS (Element Management System)” and “NMS (Network Management System”.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 22-24, 26 and 27 are rejected under 35 U.S.C. 102(e) as being anticipated by Bialk et al. (US 2004/0031059), hereinafter referred to as Bialk.

For claim 22, Bialk discloses an EMS topology map including a subset of network entities (see elements within the element management 82) and hierarchical information on location (para 0075, where addresses and location info is taught) of the network

entities in the subset **(para's 0091 and 0092, where the SDI database contains topology data including the configuration/map of the element management devices/.EMS's such as the HDT and NIU and etc.);**

means for receiving from the NMS a change request comprising topology change data **(para 0042, the network manager instructs/request change in config);**

and means for changing the EMS map according to the topology change data **(para 0042, where the network manager NMS instructs the element management layer/EMS how the elements are configured/mapped).**

For claim 23, Bialk et al disclose further comprising a user interface for enabling the EMS to receive a user request comprising the topology change data pertaining to a specified network entity in the subset of network entities (para 0092, topology change & update).

For claim 24, Bialk et al disclose further comprising means for automatically sending the user request to NMS (para 0082, automatically synchronized and update between NMS and EMS).

For claim 26, Bialk et al teach further comprising means for cyclically checking the state of the EMS, storing the change request whenever the EMS is temporarily in an 'off state', and providing the change request to the EMS when the EMS is back in an 'on state' (para 0043 & 0055, NMS map management data with EMS, and provide storing the change request whenever the EMS is temporarily in an 'off state').

For claim 27, Bialk et al disclose receiving at the NMS a user request (**para 0042, where the status information received at the network manager from the elements management layer is equivalent to a user request**) for a resynchronization of the network topology map with the EMS topology maps (**para 0060, where the network manager takes the information from the element management portion, and uses this information to update/resync its info, furthermore para 0082, shows that Bialk supports peer to peer synchronization of databases, where the network manager and element management system are related in a peer to peer fashion, and thus the databases/maps are in sync**);

identifying all EMS's affected by the request (**para 0042, status info of all of these elements are supplied**);

automatically sending, from the NMS to each of the EMS's affected by the request, updating topology data relevant to the affected EMS (**para 0085, where the NMS distributes instructions to the element management layer, and para 0042 describes how the NMS instructs the element management layer to configure based on the status info/request initially sent by the element management system**);

and updating each the EMS topology maps of each the affected EMS according to the updating topology data (**para 0082, note that a peer to peer server architecture is suggested, where the NMS and EMS are related in a peer to peer**

fashion, and thus these suggested databases are synchronized/updated according to para 0082).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-21 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bialk et al. (US 2004/0031059) in view of Naik et al. (US 2003/0133556), hereinafter referred to as Naik.

For claim 1, Bialk discloses receiving at the NMS a user request for a hierarchy altering operation, the .user request comprising topology change data (**para. 0007, NIU allows user request comprising topology change**); altering the NMS network map according to the topology change data in the user request (**para's 0091 and 0092, where the SDI database contains topology data including the configuration/map of the element management devices/.EMS's such as the HDT and NIU and etc.)**

automatically sending, from the NMS to the EMS, a change request comprising the topology change data; and updating the EMS map according to the change request (**para 0082, note that a peer to peer server architecture is suggested, where the**

NMS and EMS are related in a peer to peer fashion, and thus these suggested databases are synchronized/updated according to para 0082);

Bialk does not specifically disclose the verifying validity of the user request, and, whenever the user request is valid (para. 0036, user request);

Naik et al from the same or similar field of endeavor, teach the verifying validity of the user request, and, whenever the user request is valid (para. 0099, line 1)

Thus, it would have been obvious to someone of ordinary skill the art at the time of the invention was disclosed to modify the system of Bialk, as taught by Naik, since stated in the abstract that such a modification will provide an access secure for network management system.

For claim 2, Bialk et al teach sending an acknowledgement from the EMS to the NMS to inform the NMS that the EMS map has been updated (**para 0082, note that a peer to peer server architecture is suggested, where the NMS and EMS are related in a peer to peer fashion, and thus these suggested databases are synchronized/updated according to para 0082**).

For claim 3, Bialk et al teach wherein the topology change data refers to adding, upgrading, moving removing, and/or renaming a network entity (para 0092, topology change & update).

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For claim 4, Bialk et al teach wherein the network entity is a node group, a network node, and/or a network element (para 0092 & para 113, topology change for node group).

For claim 5, Bialk et al disclose all NMS characteristics;

Bialk does not specifically disclose providing an error message whenever the user request is invalid;

Naik et al from the same or similar field of endeavor, teach further comprising providing an error message whenever the user request is invalid (para 0220, lines 1-5);

Thus, it would have been obvious to someone of ordinary skill the art at the time of the invention was disclosed to modify the system of Bialk, as taught by Naik, since stated in the abstract that such a modification will provide an access secure for network management system.

For claim 6, Bialk does not specifically disclose wherein the step of verifying validity of the request comprises checking the syntax and the completeness of the user request.

Naik et al from the same or similar field of endeavor, teach wherein the step of verifying validity of the request comprises checking the syntax and the completeness of the user request (para 346, lines 1-6);

Thus, it would have been obvious to someone of ordinary skill the art at the time of the invention was disclosed to modify the system of Bialk, as taught by Naik, since

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stated in the abstract that such a modification will provide an access secure for network management system.

For claim 7, Bialk does not specifically disclose wherein the step of verifying comprises checking a location identification data in the user request.

Naik et al from the same or similar field of endeavor, teach wherein the step of verifying comprises checking a location identification data in the user request (para 0169);

Thus, it would have been obvious to someone of ordinary skill the art at the time of the invention was disclosed to modify the system of Bialk, as taught by Naik, since stated in the abstract that such a modification will provide an access secure for network management system.

For claim 8, Bialk et al does not specifically disclose wherein the location identification data provides the hierarchical location of a network entity to which the topology change data pertains.

Naik et al from the same or similar field of endeavor, teach wherein the location identification data provides the hierarchical location of a network entity to which the topology change data pertains (para 1236, lines2-14).

Thus, it would have been obvious to someone of ordinary skill the art at the time of the invention was disclosed to modify the system of Bialk, as taught by Naik, since

stated in the abstract that such a modification will provide an access secure for network management system.

For claim 9, Bialk et al does not wherein the error message specifies that the user request includes invalid characters.

Naik et al from the same or similar field of endeavor, teach wherein the error message specifies that the user request includes invalid characters (para 0220, lines 1-5);

Thus, it would have been obvious to someone of ordinary skill the art at the time of the invention was disclosed to modify the system of Bialk, as taught by Naik, since stated in the abstract that such a modification will provide an access secure for network management system.

For claim 10, Bialk et al does not disclose wherein the error message specifies that the user request includes incorrect location identification data.

Naik et al from the same or similar field of endeavor, teach wherein the error message specifies that the user request includes incorrect location identification data (para 0346, lines 1-6);

Thus, it would have been obvious to someone of ordinary skill the art at the time of the invention was disclosed to modify the system of Bialk, as taught by Naik, since

stated in the abstract that such a modification will provide an access secure for network management system.

For claim 11, Bialk et al does not disclose wherein the incorrect location identification data comprises an incorrect network entity name, an incorrect specification of network entities hierarchy and/or a missing name for a network entity;

Naik et al from the same or similar field of endeavor, teach wherein the incorrect location identification data comprises an incorrect network entity name, an incorrect specification of network entities hierarchy and/or a missing name for a network entity (para 1073, lines 1-12);

Thus, it would have been obvious to someone of ordinary skill the art at the time of the invention was disclosed to modify the system of Bialk, as taught by Naik, since stated in the abstract that such a modification will provide an access secure for network management system.

For claim 12, Bialk et al teach further comprising, identifying at the NMS which EMS is affected by the user request, for selectively sending the change request to the affected EMS managing one or more affected network elements (para 0040 & 0082, NMS and EMS cross interchange management data and managing one or more affected network elements).

For claim 13, Bialk et al. teach further comprising cyclically checking the state of the EMS, storing the change request whenever the EMS is temporarily in an 'off state', and providing the change request to the EMS when the EMS is back in an 'on state' (para

0043 & 0055, NMS map management data with EMS, and provide storing the change request whenever the EMS is temporarily in an 'off state').

For claim 14, Bialk et al discloses receiving at the NMS a user request for a hierarchy altering operation, the user request comprising topology change data (**para. 0007, NIU allows user request comprising topology change and para 0042, the network manager instructs/request change in config**);

altering the NMS network map according to the topology change data in the user request (**para's 0091 and 0092, where the SDI database contains topology data including the configuration/map of the element management devices/.EMS's such as the HDT and NIU and etc.**);

automatically sending, from the NMS to the EMS, a change request comprising the topology change data (**para 0042, the network manager instructs/request change in config**);

and updating the EMS map according to the change request (**para 0082, note that a peer to peer server architecture is suggested, where the NMS and EMS are related in a peer to peer fashion, and thus these suggested databases are synchronized/updated according to para 0082**)

Bialk does not disclose the verifying validity of the user request, and, whenever the user request is valid (para. 0036, user request):

Naik et al from the same or similar field of endeavor, teach the verifying validity of the user request, and, whenever the user request is valid (para. 0099, line 1);

Thus, it would have been obvious to someone of ordinary skill the art at the time of the invention was disclosed to modify the system of Bialk, as taught by Naik, since stated in the abstract that such a modification will provide an access secure for network management system.

For claim 15, Bialk et al does not disclose wherein the EMS disables any subsequent user requests involving the topology change data from the EMS, for enabling user request pertinent to the network entity from one localized place.

Naik et al from the same or similar field of endeavor, teach wherein the EMS disables any subsequent user requests involving the topology change data from the EMS, for enabling user request pertinent to the network entity from one localized place (0154).

Thus, it would have been obvious to someone of ordinary skill the art at the time of the invention was disclosed to modify the system of Bialk, as taught by Naik, since stated in the abstract that such a modification will provide an access secure for network management system.

For claim 16, Bialk et al. disclose a network topology map comprising all network entities in the communication network and hierarchical information on location of the network entities (**para's 0091 and 0092, where the SDI database contains topology**

data including the configuration/map of the element management devices/.EMS's such as the HDT and NIU and etc.);

a user interface for enabling the NMS to receive a user request comprising topology change data pertaining to a specified network entity (**para. 0007, NIU allows user request comprising topology change and para 0042, the network manager instructs/request change in config**),

and means for generating from the user request a change request comprising the topology change data and automatically sending the change request to an EMS affected by the user request (**para 0042, the network manager instructs/request change in config**);

Bialk does not disclose means for verifying validity of the user request; means for changing the NMS map according to the topology change data whenever the user request is valid;

Naik et al from the same or similar field of endeavor, teach the means for verifying validity of the user request; means for changing the NMS map according to the topology change data whenever the user request is valid (para. 0099, line 1).

Thus, it would have been obvious to someone of ordinary skill the art at the time of the invention was disclosed to modify the system of Bialk, as taught by Naik, since stated in the abstract that such a modification will provide an access secure for network management system.

For claim 17, Bialk et al teach wherein the hierarchical information on location of the network entities provides a location of a network element in the entire network, in a node group and/or in a network node (para 0092 & para 113, topology change for node group).

For claim 18, Bialk et al teach wherein the NMS map is stored in a NMS database (para 0098 & 0105, NMS map is stored in a NMS database).

For claim 19, Bialk et al teach further comprising means for identifying the EMS affected by the user request (para 0103, identifying the EMS affected by the user request).

For claim 20, Bialk et al disclose all NMS characteristics; except wherein the means for verifying validity of the user request comprises a set of EMS specific rules and limitations (para 0250, line 1; para 252, line 1; para 253, line 1; and para 255, lines 1-4);

Naik et al from the same or similar field of endeavor, teach wherein the means for verifying validity of the user request comprises a set of EMS specific rules and limitations (para 0250, line 1; para 252, line 1; para 253, line 1; and para 255, lines 1-4)

Thus, it would have been obvious to someone of ordinary skill the art at the time of the invention was disclosed to modify the system of Bialk, as taught by Naik, since stated in the abstract that such a modification will provide an access secure for network management system.

For claim 21, Bialk et al disclose all NMS characteristics; except wherein the means for verifying comprises a list of syntax errors, invalid characters, and empty node group names.

Naik et al from the same or similar field of endeavor, teach wherein the means for verifying comprises a list of syntax errors, invalid characters, and empty node group names (para 346, lines 1-6);

Thus, it would have been obvious to someone of ordinary skill the art at the time of the invention was disclosed to modify the system of Bialk, as taught by Naik, since stated in the abstract that such a modification will provide an access secure for network management system.

For claim 25, Bialk et al disclose all NMS characteristics; except further comprising means for disabling any subsequent user requests involving the topology change data from the EMS, for enabling user request pertinent to the network entity from one localized place.

Naik et al from the same or similar field of endeavor, teach further comprising means for disabling any subsequent user requests involving the topology change data from the EMS, for enabling user request pertinent to the network entity from one localized place (para 0154);

Thus, it would have been obvious to someone of ordinary skill the art at the time of the invention was disclosed to modify the system of Bialk, as taught by Naik, since

stated in the abstract that such a modification will provide an access secure for network management system.

Response to Arguments

5. Applicant's arguments filed on 1/28/08 have been fully considered but they are not persuasive.

(a) The applicant argued with respect to claim 27 on page 3 of the Remarks, that the cited art does not teach receiving at said NMS a user request for resynchronization of said network topology map with said EMS topology maps.

The examiner maintains that the claimed limitation interpreted within its broadest sense is disclosed within Bialk, where the request is in the form of status information **(para 0042, where the status information received at the network manager from the elements management layer is equivalent to a user request)** and also the resync request can be equivalent to the request taught in para 0075 (where the query is equivalent to a request). Furthermore, based on this status information (request) a calculation/update/resync is performed in the network manager **(para 0060, where the network manager takes the information from the element management portion, and uses this information to update/resync its info, furthermore para 0082, shows that Bialk supports peer to peer synchronization of databases, where the network manager and element management system are related in a peer to peer fashion, and thus the databases/maps are in sync);**

Also pertaining to Claim 27, the applicant argues that the cited art does not disclose managing a plurality of EMS's, each maintaining a respective EMS topology map. The examiner maintains that the claimed limitation is disclosed within Bialk, where Bialk discloses data storage synchronization in a peer to peer architecture, where the NMS and EMS are in a peer to peer architecture (see para 0082). Thus each peer/system has its own database which is synchronous to the other database. Furthermore, Bialk discloses EMS's sending information pertaining to its configuration (including addresses and location info which is equivalent to a topology map, as disclosed in para 0092), where this information is stored in from form of memory, where as the examiner understands, this memory is equivalent to the memory disclosed in the peer to peer architecture previously discussed.

(b) The applicant argued with respect to claim 1 and 14, that the cited art does not disclose each EMS maintaining a respective EMS topology map. The examiner maintains that the claimed limitation is disclosed within Bialk, where Bialk discloses data storage synchronization in a peer to peer architecture, where the NMS and EMS are in a peer to peer architecture (see para 0082). Thus each peer/system has its own database which is synchronous to the other database. Furthermore, Bialk discloses EMS's sending information pertaining to its configuration (including addresses and location info which is equivalent to a topology map, as disclosed in para 0092), where this information is stored in from form of memory, where as the examiner understands,

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this memory is equivalent to the memory disclosed in the peer to peer architecture previously discussed.

(c) The applicant argued with respect to claim 14 on page 5 of the remarks, that the cited art does not disclose automatically sending, from the EMS to said NMS, a change request.

Bialk discloses automatically sending, from the EMS to said NMS, a change request (**para 0042, the network manager instructs/request change in config**).

Similarly with respect to claim 16, the applicant argued on page 6 of the remarks that the cited art does not disclose means for generating from said user request a change request comprising said topology change data and automatically sending said change request to an EMS affected by said user request

Bialk discloses means for generating from the user request a change request comprising the topology change data and automatically sending the change request to an EMS affected by the user request (**para 0042, the network manager instructs/request change in config/topology to the element management layer**).

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHRISTOPHER P. GREY whose telephone number is (571)272-3160. The examiner can normally be reached on 10AM-7:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Moe Aung can be reached on (571)272-7314. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Aung S. Moe/
Supervisory Patent Examiner, Art Unit 2616

/Christopher P Grey/
Examiner, Art Unit 2616

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